

CMZ

How to Use

I. From Day 3 until Day 21

- A. Start day three mixing 1 pint to 256 gallons (1 pint to 2 gallons stock solution and meter at rate of 1 oz. per gallon)
- B. Run this solution Monday, Wednesday & Friday allowing mixture to run out between days.

II. From Day 21 until end of grow out

- A. Start Day 21 mixing 1 quart to 256 gallons (1 quart to 2 gallons stock solution and meter at a rate of 1 oz. per gallon)
- B. Run this solution Monday, Wednesday & Friday allowing mixture to run out between days.

Other products commonly used along with CMZ.

- 1. ELECTROLYTES are used any time that the birds are under stress.
- 2. Vinegar is used to draw birds to water also to clean and sterilize water System.
- 3. Broiler Vita Pack—This is a very concentrated vitamin pack for poultry. It Contains all essential vitamins in a single pack.

MATERIAL SAFETY DATA SHEET

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ISO 9002 Certified

Section 1. PRODUCT IDENTIFICATION

PRODUCT NAME - CMZ

CHEMICAL FAMILY - Carboxylic Acid

Section 11. HAZARDOUS INGREDIENTS

CAS Number	Chemical Names(s)	OSHA		ACGIH:	
		PEL	STEL	TLV	STEL
64-19-7	Acetic Acid	10 ppm -----		10 ppm	
7758-99-5	Copper Sulfate	Permissible Air Concentrations			
7446-20-0	Zinc Sulfate	Permissible Air Concentrations			
10034-96-5	Manganese Sulfate	Permissible Air Concentrations			
1401-55-4	Tannic Acid	LD ₅₀ (oral, rat) 2260 mg/kg.			
50-21-5	Lactic Acid	Rabbit Oral LD50:>3730 mg./kg.			
		Rabbit Dermal LD50:>7940 mg./kg.			
		Severely Irritating			
		Rabbit, Skin Irritation: 500 mg./24 hrs.			
		Severely Irritating			
77-92-9	Citric Acid	Oral-rat 11,700mg./kg.			
		Dermal acute 500 mg./24 hrs. Moderate			
		Eye 750 mg./24 hrs. Severe			

Section 11. PHYSICAL DATA

Boiling Point -°F °C)	>212°F (>103°C)
Specific Gravity: (H ₂ O)	Range 1.01 to 1.08
Vapor Density: (Air =1)	2.1
Vapor Pressure: (mmHg 20°C)	14mmHg
Percent Volatile by Volume: (%)	100%
Evaporation Rate: (Butyl Acetate =1)0.97	
Solubility in Water:	100%
Appearance and Odor:	Clear, Blue green liquid, with sharp vinegar odor

Section IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point: (Method Used)	(Tag Closed Cup) 131 °F (84%): none (56%) Note: Aqueous solutions greater than 70% acetic acid are combustible. Acetic Acid, 70% has a flash point of 140 - 145 °F (estimate).
Flammable Limits: (% By Volume)	(For glacial acetic acid) Lower: 4, Upper: 16
Extinguishing Media:	Carbon Dioxide, Dry Chemical and Alcohol-Type Foams.
Special Fire Fighting Procedures:	Fire fighters should wear protective clothing including self-contained breathing apparatus. Acetic acid reacts with most metals to liberate hydrogen gas.
Unusual Fire and Explosion Hazards:	Vapors are heavier than air and can flow to sources of ignition.

Section V. REACTIVITY DATA

Stability:	Stable
Hazardous Polymerization:	Will not occur.
Incompatibility (Materials to Avoid)	Carbonates, phosphates, hydroxides, oxides, and strong oxidizers, strong alkali and amines, and metals.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide. Acetic acid reacts with most metals to liberate hydrogen gas.

SECTION VI. EMERGENCY AND FIRST AID PROCEDURES

Inhalation: Remove victim to fresh air. Give artificial respiration of not breathing. Get prompt medical attention.
Eye Contact: Immediately flush eyes for at least 15 minutes while holding eyelids open. Get immediate medical attention.
Skin Contact: Remove contaminated clothing while flushing skin with plenty of water for at least 15 minutes. Get medical attention immediately for irritation and burns.
Ingestion: DO NOT INDUCE VOMITING. It is important to obtain medical attention immediately, Give milk, water containing milk of magnesia, or olive oil.

Section V11. HEALTH HAZARD DATA (Effects of Overexposure)

Inhalation: Highly corrosive to mucous membranes producing irritation, reddening, and edema. Bronchitis, pulmonary edema and chemical pneumonia may result.
Eye Contact: Severe burns and permanent damage can result from contact with eyes.
Skin Contact: Contact with skin can result in burns.
Ingestion: Burns to mucous membranes. There may be pain, vomiting, hemorrhage, and perforation of organs.
Primary Routes of Entry: Inhalation and skin contact.
Chemical Listed As Carcinogen or Potential Carcinogen: NTP/No IARC/No OSHA/No

SECTION VIII. SPILL OR LEAK PROCEDURES

Steps To Be Taken In Case Material Is Released Or Spilled: Personnel with proper protective equipment should contain spill. Water spray may be used to reduce vapors. Neutralize spill by covering with lime or soda ash. Remove to containers for disposal.
Waste Disposal Method: Disposal is to be in accordance with all federal, state, and local regulations.

SECTION IX. SPECIAL PROTECTION INFORMATION

Respiratory Protection: NIOSH - Approved Respirator.
Ventilation: Local exhaust as required to maintain vapor concentrations below permissible limits.
Protective gloves: Rubber gloves.
Eye Protection: Chemical splash goggles and face shield.
Other Protective Equipment: Acid Suit, safety shower, and eye wash fountain.

SECTION X. SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store in a dry, well ventilated area. Acetic acid solutions of greater than 70% acid are combustible. Store away from heat, sparks, and flames.

Other Precautions: Wash thoroughly after handling. Do not get in eyes, on skin, or clothing. Avoid breathing vapors. Keep containers closed. Use with adequate ventilation. DANGER-- CAUSES SEVERE BURNS TO SKIN AND EYES. REACTS VIOLENTLY WITH STRONG ALKALI. HARMFUL IF INHALED.

Hazard Rating: For: >10% & <50% Health 2
Flammability: 1
Reactivity: 1

FOR WITH MORE THAN 10% BUT NOT MORE THAN 50% ACID

Proper Shipping Name: Acetic Acid Solution, UN2790
Hazard Class: Class 8, CORROSIVE
Packing Group: PGII
D.O.T. Label Required: CORROSIVE
Reportable Quantity of Product: 5000 Pounds

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